

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method for translating a virtual memory address into a physical memory address in a multi-node system, the method comprising:

maintaining a remote translation table (RTT) to store virtual to physical memory translations;

~~initializing~~ maintaining in a generally accessible memory an emulated remote translation table (ERTT) segment to store virtual to physical memory translations;

providing the virtual memory address at a source node;

determining that a translation for the virtual memory address does not exist;

determining that the ERTT is to be used to translate the virtual memory address and that the RTT is not to be used to translate the virtual memory address;

determining a virtual node to query based on the virtual memory address;

accessing an ERTT header to obtain a mapping of the virtual node to a physical node;

querying the ERTT segment on the physical node for the translation for the virtual memory address; and

loading the translation into a translation lookaside buffer (TLB) on the source node.

2. (Canceled)

3. (Canceled)

4. (Previously Presented) The method of claim 3, further comprising locating the ERTT header at a well known location to one or more nodes used by an application.

5. (Original) The method of claim 4, wherein the ERTT header is located on a predetermined virtual node.

6. (Currently Amended) A computerized system for managing virtual address translations, the system comprising:

a plurality of nodes available for executing programs, each of said nodes having a node memory;

an RTT on each of the plurality of nodes for managing virtual address translations;

an ERTT to store virtual to physical memory translations, wherein the ERTT is in a different memory from the RTT

an ERTT header having one or more mappings of virtual nodes to physical nodes;

an operating system executable by a source node of the plurality of nodes, the operating system operable to:

receive a virtual memory address at the source node;

determine that a translation for the virtual memory address does not exist on the source node;

determining that the ERTT is to be used to translate the virtual memory address and that the RTT is not to be used to translate the virtual memory address.;

determine a virtual node to query based on the virtual memory address;

access the ERTT header to obtain a physical node mapped by the virtual node;

query ~~an emulated remote translation table (ERTT) segment~~ the ERTT in the generally accessible memory on the physical node for the translation for the virtual memory address; and

loading the translation into a translation lookaside buffer (TLB) on the source node.

7. (Canceled)

8. (Canceled)

9. (Previously Presented) The system of claim 3, wherein the ERTT header is located at a well known location to one or more nodes used by an application.

10. (Original) The system of claim 9, wherein the ERTT header is located on a predetermined virtual node.

11. (Currently Amended) A computer-readable medium having computer executable instructions for executing a method for translating a virtual memory address into a physical memory address in a multimode system, the method comprising:

maintaining a remote translation table (RTT) to store virtual to physical memory translations;

~~initializing~~ maintaining in a generally accessible memory an emulated remote translation table (ERTT) segment to store virtual to physical memory translations, wherein the RTT is in a different memory from the ERTT;

providing the virtual memory address at a source node;

determining that a translation for the virtual memory address does not exist;

determining that the ERTT is to be used to translate the virtual memory address and that the RTT is not to be used to translate the virtual memory address;

determining a virtual node to query based on the virtual memory address;

accessing an ERTT header to obtain a mapping of the virtual node to a physical node;

querying the ERTT segment on the physical node for the translation for the virtual memory address; and

loading the translation into a translation lookaside buffer (TLB) on the source node.

12. (Canceled)

13. (Canceled)

14. (Previously Presented) The computer-readable medium of claim 11, wherein the method further comprises locating the ERTT header at a well known location to one or more nodes used by an application.

15. (Original) The computer-readable medium of claim 14, wherein the ERTT header is located on a predetermined virtual node.
16. (Previously Presented) The method of claim 1, further comprising replicating the ERTT header on a plurality of physical nodes.
17. (Previously Presented) The system of claim 9, further comprising a plurality of replicated ERTT headers provided on a plurality of physical nodes.
18. (Previously Presented) The computer-readable medium of claim 14, wherein the method further comprises replicating the ERTT header on a plurality of physical nodes.
19. (New) The method of claim 1, wherein determining that the ERTT is to be used includes determining that an application has chosen to use the ERTT.
20. (New) The method of claim 1, wherein determining that the ERTT is to be used includes determining that the source node is operating in a kernel mode.